S/145/60/000/003/009/010
D221/D301

AUTHORS: Melamed, V.I., Candidate of Technical Sciences, Docent and Davidyuk, V.I., Engineer

TITLE: On the problem of evaluating plastic deformation of copper during machining

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye, no. 3, 1960, 97 - 105

TEXT: The authors apply the method of induced thermoelectric motive force, developed by Professor N.F. Kunin, in investigating the plastic deformation of chips. This is based on internal changes in the physical properties of the latter and not on the outside phenomena of plastic deformation in the metal. The changes in chip contraction and thermo-electric qualities of the deformed chip were examined in relation to the thickness of cut and the rake of tool. Plastic deformation is accompanied by work hardening which is explained by distortion of crystal matrix, produced from the transfer into heat of a part of energy due to deformation. The absorbed ener-

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gy determines the new thermo-electric properties of deformed metal as compared to the characteristics of the non-deformed metal. This enables realization of the chemically homogeneous thermocouple, one part of which is deformed and the other part is annealed. The examination of the thermo-electric motive force in relation to the plastic deformation of copper was carried out in tension, torsion, rolling and bending. In all cases it proved to be proportional to the relative deformation, $C = B\varepsilon$, where C is the thermoelectric force due to $1^{o}C$ in temperature difference; B is a constant depending on the nature of metal and conditions of deformation; ε is the relative deformation. The plastically deformed chip contains the results of all phenomena that take place during machining. The tests were carried out on a screw-cutting lathe, 1615, with an optical device on the dynamometer. A support held an indicator for precise measurement of chip thickness. The tools were made of WX-15 (ShKh-15) steel with various cutting angles and lapped edges. The copper specimens were accurately machined and annealed in hermetic crucible to prevent oxidation. The unavoidable thin film of scales was removed by pickling. The annealed specimens were shaped. The second chip was deformed. The choice of copper is due to the following

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considerations: There is no welding of chip which flows out; the method of thermo-electric motive force is fully applied for investigating plastic deformations due to tension, compression and torsion of copper, and during measurements the whole circuit is of one homogeneous metal. The experimental apparatus is shown in Fig. 2. The contact point of first and second chips was cooled to 0°C in container 1 with melting ice. The free ends of obtained thermo-couple were placed in container 2, which held paraffin at room temperature. The changes in temperature of ice and paraffin were measured by precise thermometers 3 and 4. The difference of temperatures between two containers produced the thermo-electric force, measured by galvanometer 5. The results of tests on the investigation of the effect of cut thickness and the rake on longitudinal contraction of chip were plotted. The above demonstrate that the first chip has a greater contraction than the second. The larger contraction corresponds to greater force P_z. The thermo-electric force drops with the increase of cutting angle δ. A deeper cut decreases the plastic deformation of the chip, but the latter increases with larger rakes. The relative shear ε, does not depend on the depth of cutting, and

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On the problem of evaluating ...

therefore, cannot express the plastic deformation of chip. The longitudinal contraction falls somewhat with increase of chip thickness. The chip becomes wider with greater thickness of cut and larger rake. There are 7 figures and 9 Soviet-bloc references.

ASSOCIATION: Chelyabinskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva (Chelyabinsk Institute of Mechanization and Electrification of Agriculture)

SUBMITTED: May 12, 1959

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MOLADOD, V.I., kand.tekhn.nauk, dotsent; DAVIDYUK, V.I., assistent;
CHAGINTSEVA, A.A., assistent

Cutting force and chip shrinkage in cutting-off a workhardened me'a . Izv. vys. ucheb. zav.; mashinostr. no.6:147-153
(MIRA 14:

1. Chelyabinskiy institut mekhanizatsii i elektrifikatsii s' khozyaystva.
(Metal cutting)

25955

S/126/62/013/001/016/018
E073/E535

1,1100

AUTHORS: Kunin, N.F., Melamed, V.I. and Davidyuk, V.I.

TITLE: On the relation between various types of deformation and the process of machining metals

PERIODICAL: Fizika metallov i metallovedeniye, v.13, no.1, 1962, 154-157

TEXT: According to existing views, the process of cutting plastic metals is based on plastic deformation of the metal which is transformed into chip. In establishing quantitative relations between various types of plastic deformation, two means are available, the first is to find a flow curve for the metal which is the same for all types of deformation, the second consists of establishing the equivalent specific deformation work for various methods of deformation. In establishing equivalent flow curves, it is necessary to plot a single flow curve for various types of deformation; thereby, the degree of deformation and the stress state are taken as equivalents. As a criterion of the coincidence of flow curves for various types of deformation, experimental results were used which are based on

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purely mechanical tests of measuring the size of the metal before and after deformation. In machining, the dimensions of the deforming metal layer before and after deformation are determined from the deformation of the chip and, therefore, establishment of quantitative relations between various types of deformation in the process of cutting can be related only to this quantity, which is an external feature and does not determine the plastic deformation of the metal itself. In investigating the equivalent specific deformation work for various methods of deformation, the method of induced thermo e.m.f. can be applied. It was found possible to plot a single curve of the change in the induced thermo e.m.f. caused by distortions in the crystal lattice resulting from plastic deformation as a function of the specific deformation work. On the assumption that the nature of internal changes in the metal is the same for all types of plastic deformation, the method of induced thermo e.m.f. can also be applied in studying the process of machining. The results are given of measurements of the induced thermo e.m.f. of chips produced during turning of copper discs on a thread-cutting lathe. The chip was cut at a speed of 8 m/min, whereby the thickness of the chip was varied

between 0.1 and 0.82 mm. It was found that the dependence of the thermo e.m.f. on the specific deformation work can be expressed by means of a single general curve for torsion, tension, rolling and cutting. For all these types of deformation, approximately the same induced e.m.f. corresponds to equal deformation work. The assumption that the equivalence of deformation should be evaluated on the basis of equivalence of specific deformation work was confirmed by the thermo e.m.f. method as being valid also for the case of the machining of copper. Measurements of the induced thermo e.m.f. of chip may prove useful for finding generally valid relations inter-linking the process of machining of metals with other well known types of deformation. There are 3 figures.

ASSOCIATION: Chelyabinskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva (Chelyabinsk Institute of Mechanization and Electrification of Agriculture)

SUBMITTED: April 3, 1961

PROSKURYAKOV, Yu.G.; FEDOROV, G.A.; DAVIDYUK, V.I.

Breaking chips in machining the ends of gas pipes. Stan. i instr. 36 no.6:37-38 Je '65. (MIRA 18:8)

DAVIDYUK, V.N.

1-4E2c

Research Work at the Zlatoust Metallurgical Works. V. N. Davidyuk. (Stal', 1956, (8), 751-755). [In Russian] The research work at the Zlatoust works has concentrated on steel melting and metallographic aspects—the use of low-manganese pig iron in the scrap process, the study of conditions leading to the appearance of defects and the nature of various structural and mechanical peculiarities in steels.

B fg

133-58-4-25/40

AUTHORS: Chekhomov, O. M. and Davidyuk, V. N., Engineers

TITLE: On the Problem of Axial Defects in Cold Drawn Ball Bearing Steel (K voprosu ob osevykh defektakh v kalibrovannoy sharikopodshipnikovoy stali)

PERIODICAL: Stal', 1958, Nr 4, p 354 (USSR)

ABSTRACT: The defect appeared in the form of a small crack in the fracture of rods (Figs.1-3). A study of a large number of longitudinal cross-sections of ingots indicated that one of the probable causes of the defect of cold drawn steel is the porosity of the axial part of the ingot. In the axial zone of 2.6 ton ingots of steel ShKh15SG a coarse porosity reaching more than two-thirds of the total ingot height was observed. In order to obtain a more dense axial zone, the ingot mould was redesigned (increased taper and increased shrinkage head, Fig.4). With the new shape of ingot moulds the proportion of defective heats decreased from 28.9% to 13.0%. The use of these moulds for steel ShKh6, semis of which undergo large reduction, brought to zero the proportion of rejects due to axial defects.
There are 4 figures.

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ASSOCIATION: Zlatoustovskiy metallurgicheskiy Zavod (Zlatoust Metallurgical Works)

1. Steel--Fracture 2. Ingots--Porosity 3. Molds--Design

S/133/60/000/009/003/015
A054/A029

AUTHORS: Khasin, G.A., Engineer and Davidyuk, V.N.

TITLE: News in Brief

PERIODICAL: Stal', 1960, No. 9, pp. 807-808

TEXT: 1. A new method was employed at the Zlatoustovskiy metallurgicheskiy zavod (Zlatoust Metallurgical Plant) for the self-lubrication of ingot molds during bottom pouring. Before the pouring process organic substances (petrolatum, paraffin, stearin, etc.) were fed into the ingot mold which was gradually coated with these substances. The organic material partly burns above the rising level of the metal and has a deoxidizing effect while at the same time coating the walls of the ingot mold uniformly with soot. 2. In the Zlatoust Metallurgical Plant in cooperation with the Institut elektrosvarki im. Ye.O. Patona (Institute of Electrowelding imeni Ye.O. Paton) a method was developed for the purpose of keeping the slag bath which serves as a heat source in a liquid state during the hardening of the casting by conducting through the bath a current (40 v, 1,500 - 1,700 a). This method resulted in the decrease of waste products during the conversion of the castings. 3. When casting open-hearth steel with the addition of silicochrome (Type 20), furnace-ferrosilicon

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and partly also ferrochrome and 45 %-ferrosilicon could be raplaced. 4. In the checkerwork of regenerators (in the upper IV-XVI rows) a new type of silicate chromate brick was used (Type ЗЛ - ZL), at the Zlatoust Metallurgical Plant. In open-hearth furnaces at a temperature of 1,340°C of the upper checkerwork these bricks have to be replaced after 250-300 castings. 5. In order to decrease the gas-saturation of the metal when casting in basic arc furnaces, non-ferrous manganese was applied during oxidation, while during the period of boiling for preliminary deoxidation an amount of about 10 kg/t pig iron and silicomanganese (about 4 kg/t) were added. After careful removal of the oxidizing slag the necessary amount of aluminum required for the alloy was added. The refining slag was about 2-2.5 % of the charge. The quality of the experimental casting was satisfactory, the melting time was shortened and the power consumption was reduced. 6. Pulverized nickel suboxides, with a Ni content of 79-80 %, were used when casting 40 ХН (40KhN), 12-20ХН3А (12-20KhN3A), 17ХН2 (17KhN2), 12-20Х2Н4А (12-20Kh2N4A), 30-37ХН3А (30-37KhN3A), 15ХГНТА (15KhGNTA) type Martin steels and 1Х18Н9Т (1Kh18N9T) type electrosteel without any difficulty and without causing any deterioration of the quality. Nickel suboxides can be utilized almost entirely; however, in the open hearth furnaces the consumption of pig-iron increased to some extent and in electrofurnaces the time of

S/133/60/000/010/009/013
A054/A029

AUTHORS: Khasin, G.A., Engineer; Davidyuk, V.N.

TITLE: News in Brief

PERIODICAL: Stal', 1960, No. 10, pp. 934 - 935

TEXT: In order to examine hot drawing of high-alloy steels of low plasticity (P18, P9, Kh18 = R18, R9, Kh18), tests on a laboratory scale were carried out in the Zlatoustovskiy metallurgicheskiy zavod (Zlatoust Metallurgical Plant) to determine the mechanical properties during extension. It was found that below 600°C the strength of these steel grades changed only slightly, whereas above this temperature the change came very suddenly. Maximum plasticity in Kh18 steel was obtained in the temperature ranges between 150 - 170°C and 325 - 350°C, in R18 steel between 260 - 320°C. In the tests on an industrial scale the packets were heated before reaching the drawing die with the aid of a transformer of 45 kw (380/25 v, 1,500 amp); two drawing dies were applied, the drawing rate was 46 and 10 m/min. The efficiency of hot drawing was proved mainly for steels which did not deform easily. When cooling rods of 1Kh18N9T (1Kh18N9T) type steel rapidly after rolling from 970 - 1,020°C for 9 - 17 sec, the steel obtained the

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News in Brief

mechanical properties required without any subsequent heat treatment, which resulted in a considerable saving. It was found that during cold drawing fractures occured in some types of steel, mainly in those in which the carbon and the chrome content were near the upper limit of the prescription. X-ray analyses revealed that the high degree of brittleness had to be put down to the presence of trigonal carbide (Cr_7C_3), the microhardness of which is 2,100 kg/mm^2, beside the usual cubical carbide ($Cr_{23}C_6$) having a microhardness of 1,650 kg/mm^2. Tests on an industrial scale showed that a long period of heating before rolling deteriorates the plastic properties of steel and results in rupture during drawing. This can be prevented by subjecting the steel to a recrystallizing tempering at 740°C after every reduction, with a subsequent rapid cooling in water. Laboratory tests showed that У10ХНМ (U10KhNM) and 45ХНМФА (45KhNMFA) types of steel were suitable for the production of rollers. The 45 KhNMFA type rollers displayed a greater strength than those made of "50" types of steel. The surface hardness of the 45KhNMFA type steel rollers could further be improved by increasing the velocity of cooling after their normalization with subsequent tempering. In order to make the bite smoother with the 45KhNMFA steel rollers, the calibration should be modified or the strip should be introduced in a coercive manner under the roller.

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KHASIN, G.A.; MENUSHENKOV, P.P.; PETROV, A.K.; OKHRIMOVICH, B.P.; DAVIDYUK, V.N.; FILATOV, S.K.; VASIL'YEV, P.V.; LOKTIONOV, M.V.; GUREVICH, Yu.G.

New method of mold coating with petrolatum. Metallurg 5 no.5:21-24 My '60. (MIRA 14:3)

1. Zlatoustovskiy metallurgicheskiy zavod i Chelyabinskiy politekhnicheskiy institut.
(Ingot molds) (Petrolatum)

KHASIN, G.A., inzh.; DAVIDYUK, V.N.

Investigating resistance to deformation under the effect of tension and upsetting of carbon and alloy steels at various temperatures and speeds. Stal' 20 no.10: 953 O '60. (MIRA 13:9)
(Metals—Testing)

KHASIN, G.A., inzh.; DAVIDYUK, V.N.

Experimental introduction of programmed automatic temperature control in heat treating furnaces. Stal' 20 no.10:953 O '60. (MIRA 13:9)
(Furnaces, Heat-treating) (Automatic control)
(Chromium steel... Heat treatment)

S/133/62/000/004/001/008
A054/A127

AUTHORS: Sergeyev, G.N.; Khasin, G.A; Davidyuk, V.N., Engineers

TITLE: Casting flat alloy-steel ingots

PERIODICAL: Stal', no. 4, 1962, 309 - 312

TEXT: Besides other defects, alloy-steel and alloy ingots of the conventional square and circular section type very often have an insufficient density, mostly in the axial zone. This is caused mainly by an increased carbon content, the presence of alloying elements, impurities in the form of high-melting non-metallic inclusions and an increased gas saturation of the metal. In the bottom part of the ingot the density is usually satisfactory, due to the accelerated solidification of the metal caused by intensive cooling from the sides and from the mold bottom. Evidently, the axial porosity of the ingot can, therefore, be reduced by modifying the solidification conditions of the metal accordingly: by an increase of the heat extraction from the ingot bottom which intensifies solidification from the bottom upward or by a more thorough heating of the ingot head. These conditions can be ensured partly by a change of the ingot

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S/133/62/000/004/001/008
A054/A127

Casting flat alloy-steel....

geometry (greater conicity, smaller height-to-average cross section ratio, larger dead head volume) and, partly, by a more intense heating of the head. The most favorable conditions for obtaining a uniform, dense macrostructure are given in the electroslag remelting process. At the Zlatoustovskiy metallurgicheskiy zavod (Zlatoust Metallurgical Plant) tests were carried out to cast ingots requiring a uniform macrostructure. The test ingots were shorter, their height-to-cross section ratio was considerably smaller (1,65) than in the conventional ingots, their conicity was greater (up to 10%), which promotes crystallization from the bottom upwards; the weight of the liquid metal in the head was greater (up to 37% of the total ingot weight). Under these conditions the pores forming are easily filled with liquid metal and this ensures a higher density in the axial zone of the ingot. The shorter ingot shape, however, involves other difficulties: larger parts must be cropped, the yield of first-grade steel decreases, heating, forging and rolling are more difficult. Shortened ingots are, therefore, cast only in special cases (large section rods from certain steel grades and alloys). To obtain a uniformly dense macrostructure under more favorable conditions, cooling has to be accelerated. This can only be achieved, however, by an increase of the cooling surface in relation to the volume-unit of the solidifying metal, in other words, by a reduction of the

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Casting flat alloy-steel...

ingot thickness. At the Zlatoust Metallurgical Plant 0.75-ton, 500 x 250 mm test ingots were cast, with a 135-kg riser, having the following characteristics (in brackets the corresponding data for conventional, 430-mm circular ingots):

Ingot weight (ton)	0.75 (0.7)
Riser weight-to-total ingot weight ratio (for liquid metal, %)	18 (37)
Conicity of the ingot (sidewise) %	5.63 (10.8)
Ingot height-to-average section ratio	2.32 (1.64
Lateral cooling surface-to-ingot volume ratio (without bottom part) dm^2/dm^3	1.16 (0.97)
Mold weight-to-ingot weight ratio (without riser)	2.29 (2.54)

The new geometry of the ingots permits a more rapid solidification. The axial zone of P 18 (R18), ЭИ 736 (EI736), ЭИ 961 (EI961) steel ingots is fine-grained and dense; when flat, 0.75 ton R-18 high-speed steel ingots were converted into

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rods at least 50 mm in diameter, the carbide non-homogeneity could be reduced to the standard degree [ГОСТ 5951-51 (GOST 5951-51)]. When flat R18, R9 and EI347 ingots were cast with petrolatum, their surface was greatly improved. The EI736 ingots, which usually have intergranular cracks and slag-inclusions in the conventional and shortened ingots, are free from these defects when they have a flat shape. There are no difficulties in heating, forging and rolling them. High-alloy steels and alloys should be cast into flat ingots of not more than 1 ton. For less alloyed steels an optimum configuration of heavy-weight flat ingots has to be developed and tested. There are 2 figures.

ASSOCIATION: Chelyabinskiy sovnarkhoz (Chelyabinsk Sovnarkhoz)

S/133/62/000/006/001/015
A054/A127

AUTHORS: Khasin, G. A., Davidyuk, V. N., Engineers

TITLE: At the Zlatoustovskiy metallurgicheskiy zavod (Zlatoustovsk Metallurgical Plant)

PERIODICAL: Stal', no. 6, 1962, 518 - 520

TEXT: ЛК-6 (LK-6) light-weight bricks, containing kaolin, sawdust and lignine are used for lining the extension pieces of 3.6-ton stainless steel ingots. Since they have been introduced, the head crop could be reduced by 2%. The riser for 4.6-ton open-hearth steel ingots was lined with a mixture containing 36% non-calcined vermiculite, 14% aluminum, 10% ferrosilicon (of 45%), 40% charcoal, small coke and 10% of ПАМ-4 (PAM-4) powder above 100%. 1.5 kg mixture was used for 1 ton of liquid steel. In another version 3 kg calcined vermiculite was added to 1 ton of steel; this version was more effective. 2) In co-operation with the Satkinskiy institut ogneuporov (Satkinsk Institute of Refractory Material) a method has been developed for ramming the hearth bottom, using a mixture of crushed magnesite powder and 3 - 5% titaniummagnetite concentrate. This method

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At the Zlatoustovskiy...

reduced the magnesite powder consumption for electric steel smelters by 3 - 6 kg/ton of steel. 3) When using petrolatum (0.3 kg/ton) in smelting 1Kh18N9T (1Kh18N9T) grade steel, the ingots can be delivered for rolling in hot condition and the yield of flawless product increases; the depth of roughing the 1Kh18N9T tube blanks can be reduced from 10 to 5 mm. This increases the flawless output by 7%. 4) In co-operation with the Ural'skiy institut chernykh metallov (Ural Institute of Ferrous Metals) new slags for smelting carbon steels in basic open-hearth furnaces were tested. One composition contained 17 - 85% mervinite ($3CaO \cdot MgO \cdot 2SiO_2$) and orthosilicate, the balance consisting of spinel [(Mg, Mn,Fe)O $\cdot$ $(Al,Fe,Cr,Mn)_2O_3$] and RO-phase (Fe,Mn,Mg oxides). For chrome-molybdenum steels the percentage of the first two constituents was 61 - 73, that of the latter 25 - 28. 5) In cooperation with the Institut elektrosvarki im. Ye. O. Patona (Electric Welding Institute im. Ye. O. Paton) the electroslag refilling method for electrosteels was investigated. 570 half-ton ingots were tested under the following conditions:

Duration of refilling, min.	0 - 5	5 - 8	8 - 18
Current, a	1,000	600	200

The best flux was the АНФ -6 (ANF-6) brand, preheated to 600 - 800°C; the best

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material for lining the extension pieces was chamotte. 6) The 3.6-ton electric steel ingots were poured in thin-walled (90 mm) molds, (the mold weight to ingot weight ratio, without riser, was 0.945). As compared with conventional 2.7-ton ingots, the macrostructure of 18 ХНВА (18KhNVA), ШХ15 (ShKh15) and 1Х18Н9Т (1Kh18N9T) grades was denser, it was satisfactory also after deformation. 7) Rejects due to spot formation were reduced by modification of the smelting technology of 35 ХЮА (35KhYuA) and 38 ХМЮА (38KhMYuA) steels. At the beginning of "clean" rimming 10 kg/ton pig iron, silicomanganese and 45-% ferrosilicon (in amounts of 3 - 4 kg/ton), aluminum (1 kg/ton) are added and then the required amount of ferrochrome. After chrome is smelted, the oxidizing slag is tapped and the 0.08 - 0.14% silicon containing metal alloyed with aluminum and kept under lime-fluorspar slag for 30 minutes. 8) The technology for producing СВ04Х19Н9 (SV04Kh19N9) and СВ06Х19Х9Т (SV06Kh19N9T) steels was introduced. Smelting takes place in basic electric furnaces, on carbon steel scrap, with oxidation and remelting of alloy steel scrap; oxygen is blown through the bath. Chrome, nickel and manganese are added in amounts within narrower limits than usual (18 - 18.8%, 9.5 - 10%, 1.3 - 2% respectively); petrolatum (0.3 kg/ton) is used. 8) 08Х20Н10Г6 (08Kh20N10G6) steel is smelted in basic arc furnaces with

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At the Zlatoustovskiy...

oxidation or remelting alloy steel scrap. Carbon, manganese, chrome and nickel are added within narrower limits (0.08 - 0.1%, 6 - 7%, 20 - 20.7%, 10.5 - 11% respectively). The carbon content should not exceed 0.05% at the end of the oxidizing period. Deoxidation takes place with 10 kg/ton siliconmanganese and 1 kg/ton aluminum lumps. Prior to tapping ferrotitanium is added in an amount to obtain 0.2% Ti in the finished steel. 9) To increase the ductility of H -42 (N-42) steel during forging the smelting process was changed. In one of the versions tested the bath was first reduced with pig iron (5 kg/ton), ferromanganese (1.6 - 4.5 kg/ton) and aluminum (0.3 kg/ton), after the iron ore was charged. In the second version, the pig iron was added with the current switched off, a "secondary" rimming was caused, while the electrodes were immersed in the bath for 1.5 - 12 seconds. The samples of the second version showed a higher ductility. 30 - 40 minutes after the beginning of refining, 0.5 kg/ton aluminum lumps and before tapping, again 1 kg/ton aluminum were added. The second version was adopted. 10) To improve the smelting technology of the У7АВ (U7AV) and ЭИ474 (EI474) steel grades, sulfur is added immediately after tapping the oxidizing slag; refining takes place under chamotte slag, by oxidizing it first with crushed coke and next with 75-% ferrosilicon. 11) Square and circular molds were

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At the Zlatoustovskiy...

tested for the electroslag remelting process. In the square copper molds (430 x 430 mm in size), with spraying cooling system, ШХ15 (ShKh15) grade, 2-ton ingots were remelted, at 60 v and 850 - 900 kw, applying АНФ-6 (ANF-6) flux; remelting took an average of 6.5 hours. The ingots were rolled on the 950 stand without finishing; the electroslag remelted steel had a dense macrostructure.

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S/133/62/000/009/008/009
A054/A127

AUTHORS: Khasin, G.A., Davidyuk, V.N.

TITLE: At the Zlatoustovskiy metallurgicheskiy zavod (Zlatoust Metallurgical Plant)

PERIODICAL: Stal', no. 9, 1962, 854

TEXT: In cooperation with the NIIMetiz and the Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii (Chelyabinsk Scientific Research Institute of Metallurgy) a method has been developed for hot drawing packs of high-speed steels. Before starting the process, the drawing dies are heated to 350°C; the metal is heated in a lead bath. A mixture of silver graphite and saw dust in a proportion of 3 : 1 is applied for coating. Hot drawing increased the output of the drawing equipment by a factor of 1.7, reduced the annealing time by a factor of 2.9, the labor required for 1 ton finished product by 9.6 man-hours, the operation cycle by 37.2 hours and production cost by 177.63 rubles/ton. 2) A technology for obtaining calibrated and polished 1Х21Н5Т (ЭИ811) [1Kh21N5T (EI811)] steel has been introduced. The steel is

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S/133/62/000/009/008/009
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At the Zlatoustovskiy metallurgicheskiy ....

cast into 2.7 and 1 ton ingots. The billets are made from the large ingots by rough-rolling, from the small ones by hammering prior to rough rolling. The heat treatment of the metal and its preparation for drawing and polishing are carried out according to the technology for X 18 H10 (Kh18N10) steel. To prevent increased wear of the drawing dies, the reduction rate is 16 - 18%. The mechanical properties of the steel after polishing, annealing or hardening comply with Group I of TU 291-60 (TU 291-60).

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S/133/62/000/009/007/009
A054/A127

AUTHORS: Khasin, G.A., Davidyuk, V.N.

TITLE: At the Zlatoustovskiy metallurgicheskiy zavod (Zlatoust Metallurgical Plant)

PERIODICAL: Stal', no. 9, 1962, 849

TEXT: 30-kg ingots and wire rods of H42 (N42) and X23 H18 (Kh23N18) steel were tested. Smelting took place in an h-f induction furnace with the addition of cerium in the form of ferrous cerium and cerium dioxide. These additives did not affect the macrostructure of the test steels in the cast as in the forged condition. Raising the temperature to 1,200°C increased the ductility of both grades; beyond this temperature the ductility was reduced. In the N42 grade the ductility decreased in proportion to the amount of cerium. The ductility was not affected when ferrocerium was added to the Kh23N18 grade in an amount to ensure a 0.05 - 0.20% cerium content, neither did the addition of cerium dioxide with a 0.05 - 0.15% cerium content, at 1,100 - 1,150°C change the steel properties. The latter improved, however, when 0.20% Ce was added. The ductility of Kh23N18 steel at 1,200°C increased considerably, when cerium dioxide (0.05 - 0.20% Ce), was added.

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STROGANOV, A.I., kand.tekhn.nauk; BOGATENKOV, V.F., kand.tekhn.nauk; KOLOSOV, M.I., kand.tekhn.nauk; ZVEREV, B.F., inzh.; DAVIDYUK, V.N., inzh.; POPOV, R.V., tekhnik

Heat balance of the riser head of an ingot. Stal' 22 no.1:27-29 Ja '62. (MIRA 14:12)

(Steel ingots) (Heat—Transmission)

SERGEYEV, G.N., inzh.; KHASIN, G.A., inzh.; DAVIDYUK, V.N., inzh.

Use of flat ingots of alloyed steel. Stal' 22 no.4:309-312 Ap '62. (MIRA 15:5)

1. Chelyabinskiy sovnarkhoz i Zlatoustovskiy metallurgicheskiy zavod.
(Steel ingots)

KHASIN, G.A., inzh.; DAVIDYUK, V.N., inzh.

Steel smelting; new developments in research. Stal' 22 no.6: 518-520 Je '62. (MIRA 16:7)

(Steel—Metallurgy)

KHASIN, G.A.; DAVIDYUK, V.N.

Research carried out at the Zlatoust Metallurgical Plant.
Stal' 22 no.9:813, 849, 854 S '62. (MIRA 15:11)
(Zlatoust--Metallurgical research)

KHASIN, G.A.; DAVIDYUK, V.N.

At the Zlatoust Metallurgical Plant. Stal' 22 no.10:946 O'62.
(MIRA 15:10)

(Zlatoust—Metallurgical research)

KHASIN, Gersh Aronovich; OKHRIMOVICH, Boris Pavlovich; DAVIDYUK, Viktor nikolayevich; ROZIN, Bentsian Borisovich; GEYFMAN, Roma Samuilovich; MIKHAYLOVA, Ye.P., red.izd-va; OBUKHOVSKAYA, G.P., tekhn. red.

[Pouring of alloyed steel with the use of petrolatum]Razlivka legirovannoi stali s petrolatumom. Moskva, Metallurgizdat, 1963. 44 p. (MIRA 16:3)
(Steel ingots) (Metalworking lubricants)

L 17244-63 BDS

ACCESSION NR: AP3005556 S/0133/63/000/008/0720/0720

53
52

AUTHORS: Khasin, G. A.; Davidyuk, V. N.

TITLE: a) Melting high-chromium steels under lime-alumina slag
b) Manufacturing steel Sv-08Kh19NF2S2

SOURCE: Stal', no. 8, 1963, 720

TOPIC TAGS: lime-alumina slag, chromium steel, reduction, forging, rolling

ABSTRACT: a) Lime-alumina slag was produced by adding to the batch lime and flux AMF-6 (in proportion of 2 to 1), fragments of aluminum (3 kg/T), and aluminum powder (1.5 kg/T). The percentage composition of the slag was: CaO -- 58, Al_2O_3 -- 15, SiO_2, MgO --9. During the melting of steel, slag was fluid and contained 23-30% of aluminum oxide, while the content of iron oxides was lowered to less than 1%. The loss of chromium, manganese, and titanium in steel was lowered by 2-5%, the use of electrical energy was reduced by 40 kwh/T, the period of melting was shortened by 20-30 minutes, and the work of the personnel was lightened. In many cases it was also possible to use inferior types of iron, to assure a more constant carbon content in the finished steels and to diminish the chemical interaction

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L 17244-63

ACCESSION NR: AP3005556

between slag and the furnace lining.

b) If the reduction of steel takes place under lime-alumina slag, it is possible to obtain a metal of desired chemical composition. The temperature of the steel in ladle should be 1540-1570C. Prior to forging, the metal should be heated to 1120-1140C and then should be forged with weak blows. Bars of 75cm^2 forged from a 500-kg ingot represent good rolling material.

ASSOCIATION: Zlatoustovskiy metallurgicheskiy zavod (Zlatoust Metallurgical Plant)

SUBMITTED: 00 DATE ACQ: 26Aug63 ENCL: 00

SUB CODE: ML NO REF SOV: 000 OTHER: 000

Card 2/2

L 17436-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3005557 S/0133/63/000/008/0747/0747

AUTHORS: Khasin, G. A.; Davidyuk, V. N.

TITLE: a) Plasticity improvement in steel EI256
b) Development of the supersonic inspection method and the expansion of its applications

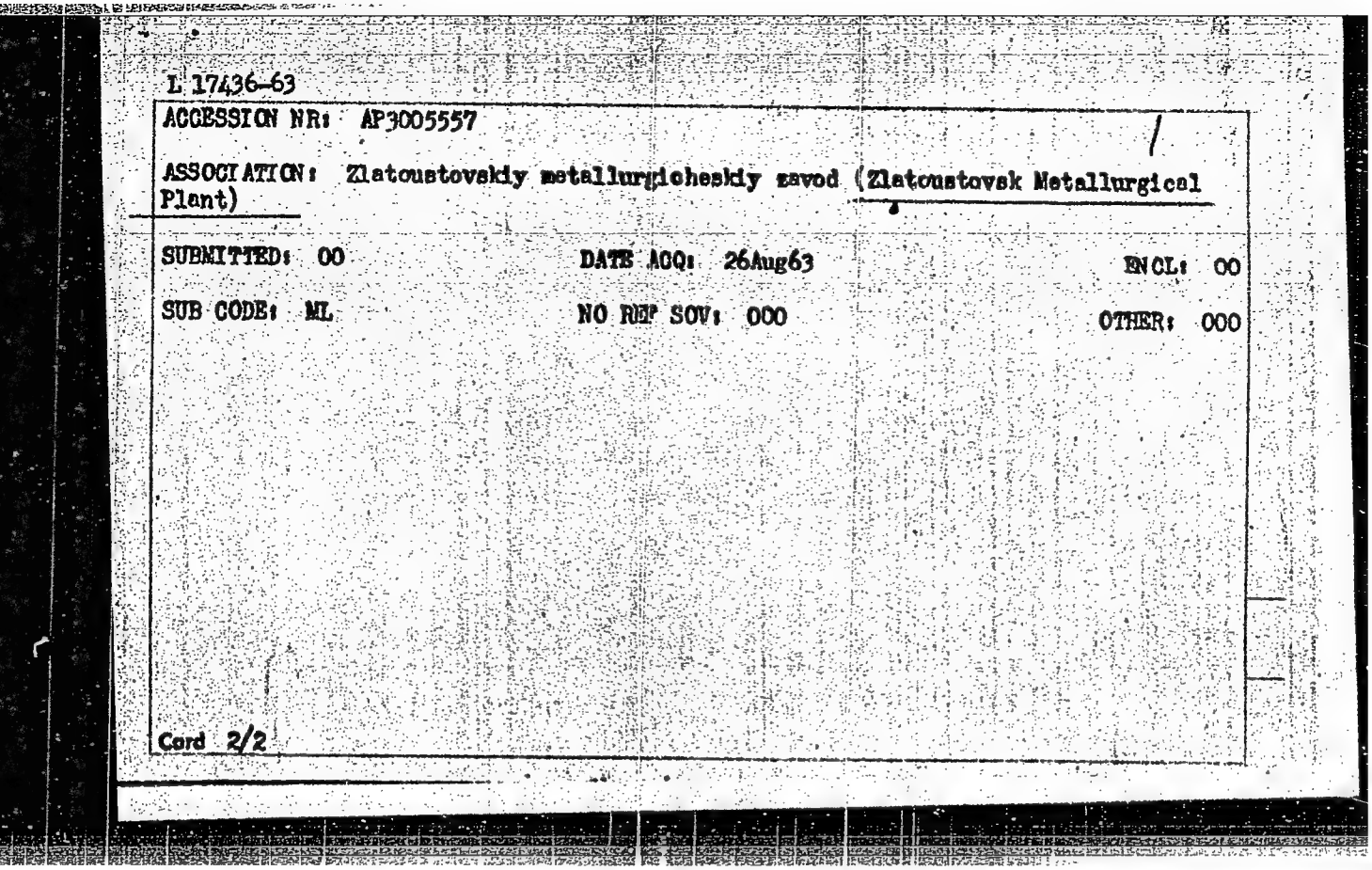
SOURCE: Stal', no. 8, 1963, 747

TOPIC TAGS: steel EI256, plasticity, supersonic inspection, defect, defectoscope, vibration frequency

ABSTRACT: a) Satisfactory results were obtained when a metal strap 100x10 mm was heated and soaked for 5 hours at 950C, then chilled in water. At the end of rolling the temperature should be 900C.

b) Defects in fine-grained metal are best detected by defectoscopes at the frequency of 2.5 megahertz. When zones of coarse grains are present, the frequency should be 1.5 megahertz. It is proper to use a frequency of 1.5 megahertz instead of 1.8 for the apparatus UDM-1M.

Card 1/2



L 17436-63

ACCESSION NR: AP3005557

ASSOCIATION: Zlatoustovskiy metallurgicheskiy zavod (Zlatoustovsk Metallurgical Plant)

SUBMITTED: 00	DATE ACQ: 26Aug63	ENCL: 00
SUB CODE: ML	NO REF SOV: 000	OTHER: 000

Card 2/2

L 15537-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3005558 S/0133/63/000/008/0767/0767

AUTHORS: Khasin, G. N.; Davidyuk, V. N.

TITLE: Introduction of new hot-forming steels into the stamping industry

SOURCE: Stal', no. 8, 1963, 767

TOPIC TAGS: steel 5KhSV2F, 4Kh3VMF, 5Kh4SV4MF, 5KhNV, 5Kh3V3MF, 6KhV2S, stamping die, cutting blade

ABSTRACT: Steels 5KhSV2F, 4Kh3VMF, and 5Kh4SV4MF have been tested. Stamping inserts of steel 4Kh3VMF were found 45% more durable than inserts of steel 5KhNV. Cubes of steel 4Kh3VMF withstood 2399-582 stampings, while cubes of steel 5KhNV endured only 1500-500. Cubes of steel 5KhSV2F were the least resistant, probably due to their poor annealing. Hot-cutting blades of steel 4Kh3VMF lasted for 20 cutting operations; blades of 5Kh3V3MF endured only 4-10 operations. Cold-cutting blades of steel 5Kh4SV4MF, hardened to 50 Rockwell, lasted for 6 cutting operations, while similar blades of steel 6KhV2S endured only 2-3 operations.

ASSOCIATION: Zlatoustovskiy metallurgicheskiy zavod (Zlatoustovsk Metallurgical Plant)

SUBMITTED: 00 DATE ACQ: 26Aug63 ENCL: 00

SUB CODE: ML NO REF SOV: 000 OTHER: 000

Card 1/1

SERDYUKOV, G.V., inzh.; KHASIN, G.A.; DAVIDYUK, V.N.

New developments in research. Stal' 23 no.8:719-720 Ag '63.
(MIRA 16:9)

(Steel--Metallurgy)

KHASIN, G.N.; DAVIDYUK, V.N.

New developments in research. Stal' 23 no.8:767 Ag '63. (MIRA 16:9)

(Metallurgy)

KHASIN, G.A.; DAVIDYUK, V.N.

New developments in research. Stal' 23 no.9:810 S '63.
(MIRA 16:10)

KHASIN, G.A.; DAVIDYUK, V.N.; FRANTSOV, V.P., inzh.; KHITRIK, A.I., inzh.; MATVEYEV, Yu.M.; VARNAVSKIY, I.; RYSYUKOV, N.; ZHURAVLEV, S.

New developments in research. Stal' 24 no.10:880, 898, 909, 917, 930, 942, 946 O '64. (MIRA 17:12)

BABIY, A.S.; TOL'SKIY, A.A.; KHASIN, G.A.; DAVIDYUK, V.N.

New developments in research. Stal' 25 no.8:739 Ag '65.
(MIRA 18:8)

SHUSHLEBIN, B.A., inzh.; MATSEPON, Yu.A.; KHASIN, G.A.; DAVIDYUK, V.N.

New developments in research. Stal' 25 no.8:824 S '65. (MIRA 18:9)

L 27432-66 EWT(m)/EWA(d)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6017776 SOURCE CODE: UR/0133/65/000/009/0819/0819

AUTHOR: Khasin, G. A.; Davidyuk, V. N.

ORG: Zlatoust Metallurgical Plant (Zlatoustovskiy metallurgicheskiy zavod)

TITLE: Production of OKh18N12T steel

SOURCE: Stal', no. 9, 1965, 819

TOPIC TAGS: steel, vacuum melting, induction furnace, vacuum furnace, argon, ductility, steel structure, titanium/OKh18N12T steel

ABSTRACT: The melting of grade OKh18N12T steel in vacuum induction furnaces and subsequent pouring into ingots weighing (mass) 0.5 ton (megagrams) in an argon atmosphere provides satisfactory ductility of metal in the conversion process. "Titanium crust" on the periphery and a "titanium crust" in the cross section of the specimens are a basic defect of the steel macrostructure. [JPRS]

SUB CODE: 11, 13, 20 / SUBM DATE: none

Card 1/1

UDC: 669.187.2.083.4 : 621.365.5.001.5

L 27435-66 EWT(m)/EWA(d)/EWP(t)/ETI IJP(c) JD
ACC NR: AP6017775 SOURCE CODE: UR/0133/65/000/009/0819/0819

AUTHOR: Khasin, G. A.; Davidyuk, V. N.

ORG: Zlatoust Metallurgical Plant (Zlatoustovskiy metallurgicheskiy zavod)

TITLE: Vacuum arc melting of 30KhGSNA steel

SOURCE: Stal', no. 9, 1965, 819

TOPIC TAGS: vacuum melting, steel, manganese, silicon, steel structure, nonmetallic inclusion, solid mechanical property/30KhGSNA steel

ABSTRACT: Melting was done in a 380-mm diameter crystallizer with a current strength ranging from 5 to 5 ka. Loss of manganese and silicon amounted to 34% and 6.5% respectively. Steel quality as to macrostructure, contamination with nonmetallic inclusions, and mechanical properties satisfied requirements of technical specifications. [JPRS]

SUB CODE: 11, 13, 20 / SUBM DATE: none

Card 1/1

UDC: 669.187.2.083.4 : 621.365.2.001.5

MOROZOVA, V.G.; KREYDENKOV, G.P.; DAVIDZON, R.M.

Biostratigraphy of Paleocene sediments in the Tajik Depression.
Biul. MOIP. Otd. geol. 40 no.3:34-56 My-Je '65. (MIRA 18:8)

CEPLECHA, Z.; JEZKOVA, M.; NOVAK, M.; RAJCHL, J.; SEHNAL, L.; DAVIES, J.G.

Ondrejov double-station meteors during the IGY and IGC. Biul astr Cz 15 no. 4:144-155 '64.

1. Astronomical Institute, Czechoslovak Academy of Sciences, Ondrejov (for all except Davies). 2. Nuffield Radio Astronomy Laboratories of the Manchester University (for Davies).

FISTER,V.; DAVILA,D.

Effect of the anemization and of chlorpromazine on the resistance of albino rats to acute hypoxia. Acta med. iugosl. 13 no.4:424-432 '59.

1. Zavod za patofiziologiju Medicinskog fakulteta u Zagrebu.
(ANEMIA exper.)
(CHLORPROMAZINE pharmacol.)
(ANOXIA exper.)

FISTER, Vjekoslav (Zagreb); DAVILA, Dusan (Zagreb)

Chronic hypoxia and regeneration of thyroid gland in rat. Biol glas 13 no.4:401-402 '60.

1. Zavod za patolosku fiziologiju Medicinskog fakulteta Sveucilista u Zagrebu. 2. Clan Urednistva, "Bioloski glasnik; Periodicum biologorum" (for Fister).

(HYPOXIA) (RATS)

DAVILA, Dusan; FISTER, Vjekoslav; BAIC, Dusan, JANJIC, Ivan

Influence of thyroidectomy and largactil on the body weight and on the polycythemia caused by a chronic intermittent hypoxia in albino rats. Biol glas 14 no.1/2:77-86 '61.

1. Zavod za patolosku fiziologiju Medicinskog fakulteta Sveucilista u Zagrebu. 2. Clan Uredništva, "Biloloski glasnik, Periodicum biologorum" (for Fister).

USSR/Human and Animal Physiology. Lactation. T

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93517.

Author : Davilenko, A.O.
Inst :
Title : Influence of Conditioned Reflexes on Activity of Mammary Glands.

Orig Pub: Pediatriya, akusherstvo i ginekologiya, 1956, No 3, 45-48.

Abstract: For indication of the functional state of the mammary glands (MG) of nursing mothers (50), the difference in the temperature of the MG and the groin was taken. Conditioned stimuli were: washing of the hands before nursing, donning of a mask, cry of the child, verbal stimuli, rhythm of nursing. When a setting was created

Card : 1/2

GRIGOR'YEV, A.K.; DAVIL'BEKOV, N.Kh.

Investigating corresponding conditions of metal rolling in grooves and with smooth rolls. Trudy LPI no.238:56-63 '64. (MIRA 17:11)

DAVILENKO, N.K.

Dissociation constants of trioxyglutaric acid. Zhur. ob. khim. 28 no.4:859-862 Ap '58. (MIRA 11:5)

1. Institut obshchey i neorganicheskoy khimii Akademii nauk Ukrainskoy SSR.

(Glutaric acid)

SMIRNOV, V.S.; DAVIL'BEKOV, N.Kh.; GRIGOR'YEV, A.K.

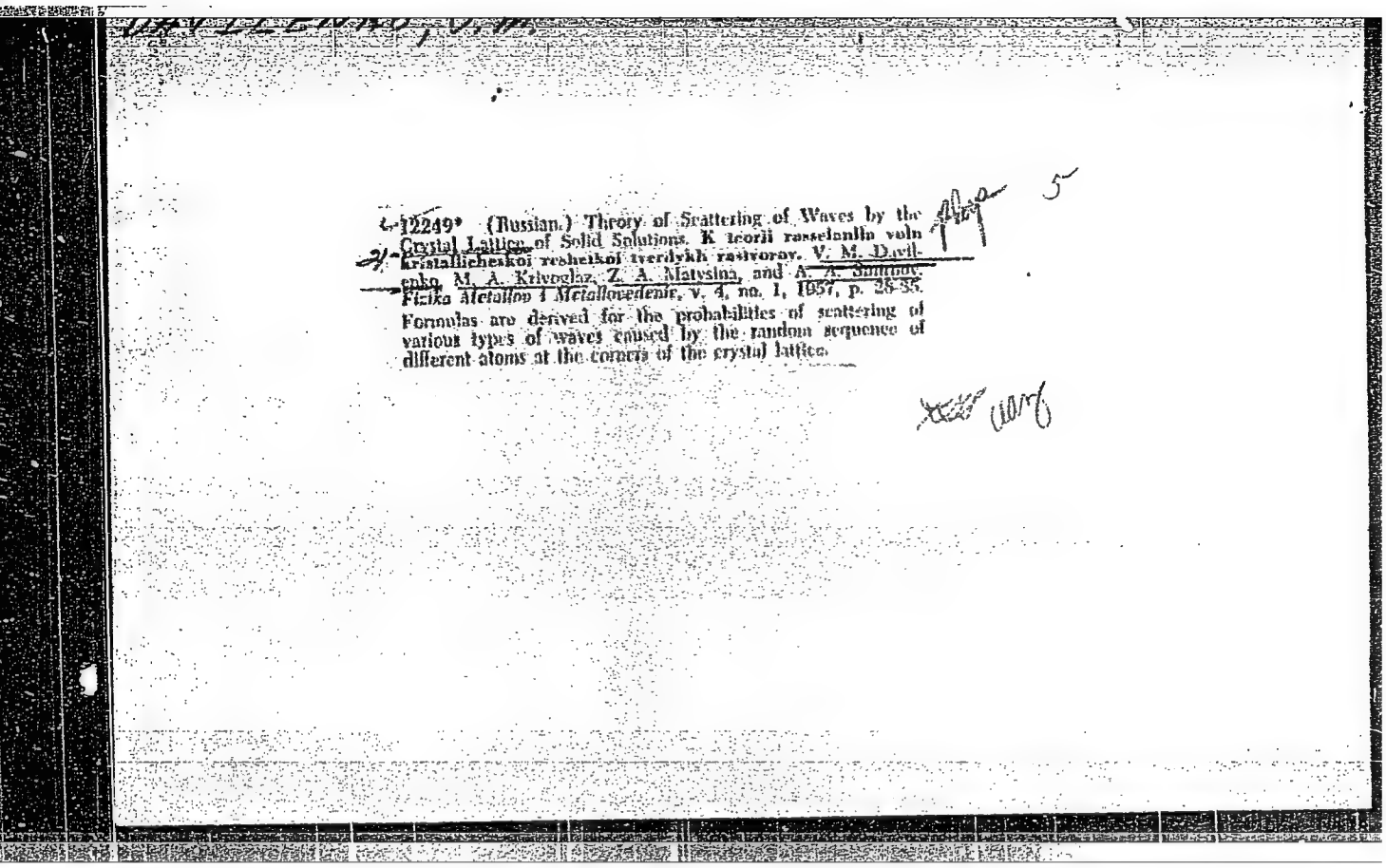
Determining metal pressure on the rolls during rolling in diamond passes. Izv. vys. ucheb. zav.; chern. met. 8 no.7:116-119 '65.
(MIRA 18:7)

1. Leningradskiy politekhnicheskiy institut.

SMIRNOV, V.S.; GRIGOR'YEV, A.K.; DAVIL'BEKOV, N.Kh.

Coefficients of metal deformation during rolling in a cogging-down pass. Trudy LPI no.243:54-65 '65.

(MIRA 18:6)



12249* (Russian.) Theory of Scattering of Waves by the Crystal Lattice of Solid Solutions. K teorii rasseianiia voln kristallicheskoi reshetkoi tverdykh rastvorov. V. M. Daviденko, M. A. Krivoglaz, Z. A. Matysina, and A. A. Smirnov. *Fizika Metallov i Metallovedenie*, v. 4, no. 1, 1957, p. 28-35.

Formulas are derived for the probabilities of scattering of various types of waves caused by the random sequence of different atoms at the corners of the crystal lattice.

DAVILOVA, V. V.

Dissertation: "A Method of Determining Small Amounts of Fluorine and Its Use in Geochemical Investigations." Cand Geol-Min Sci, Institute of Geological Sciences, Acad Sci USSR, 12 Jun 54. (Vechernyaya Moskva, Moscow, 3 Jun 54)

SO: SUM 318, 23 Dec 1954

BOGDANOVICH, Oleg Vyacheslavovich; RINKEVICHYUS, Viktoras Vintsevich [Rinkevicius, V.V.]; DAVIMAS, L.[translator]; BLYUVSHTEYNAS, Yu. [Bliuvshteinas, J.], red.; MUNITSAS, B., tekhn. red.

[Concise address and reference book of Vilnius as of July 1, 1960] Kratkaia adresno-spravochnaia kniga po sostoianiiu na 1 iulia 1960 goda. Vil'nius, Profizdat LRSPS, 1960. 253 p. (MIRA 14:12)

1. Vil'na, Upravleniye mestnogo khozyaystva.
(Vilnius—Directories)

~~MIODRAG~~, DAVINIC, M.

r YUGOSLAVIA / Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binding Materials. Concretes. H

Abs Jour: Ref Zhur-Khimiya, No 19, 1958, 65168

Author : Davinic Miodrag
Inst :
Title : Reconstruction of the Production of Curved Glass

Orig Pub: Tehnika, 1957, 12, No 11, Nem. ind. 11, No 11, 174-176

Abstract: In the production of curved glass, the illuminating gas used for heating the furnaces has been replaced by generated gas, with which curved glass of very good quality is obtained. As a consequence

Card 1/2

DAVINITS, E.

Application of free-piston gas generators in power plants; also, remarks by O. Rittner and others. p.41.

ENERGIA ES ATOMTECHNIKA. (Energiagazdalkodasi Tudomanyos Egyesulet)
Budapest, Hungary
Vol. 12, no.1, Jan. 1959

Monthly List of East European Accessions (EEAI) LC., Vol. 8, No. 7, July 1959
Uncl.

DAVINITS, Elemer

"Increasing the output of heat power plants with coupled gas and steam cycles and by applying gas generators with free pistons" by Dr.H.Horgen and P.Szereszewski. Energia es atom 13 no.4/5:170-172 Ap-My '60.

1. HOTERV.

DAVITASHVILI, E.G., red.

[Surface phenomena in aluminosilicates] Poverkhnostnye yavleniia na aliumosilikatakh; sbornik statei. Tbilisi, Metsniereba, 1965. 123 p. (MIRA 18:12)

1. Akademiya nauk Gruzinskoy SSR, Tiflis. Institut fizicheskoy i organicheskoy khimii.

DAVITASHVILE, L.S.

"Darwinism and the problem of extinction." (p. 267)
by Davitashvile, L. S.

SO: Advances in Modern Biology(Uspekhi Sovremennoi Biologie)
Vol. XI, No. 2, 1939

DAVITASHVILI, L. SH.

"Darwinism and the Problem of Accumulation of Fossil Combustible Materials" (page 271) by Davitashvili, L. Sh. (Tiflis, 1943, 117 pages) Reviewed by Schmidt, G. A.

SO: Advances in Modern Biology (Uspekhi Sovremennoi biologii), Vol. 18, 1944, No. 2

DAVITASHVILI, L. Sh.

V. O. Kovalevski- Biografii (V. O. Kovalevski- Biographies), 422 p., AS USSR, Moscow, Leningrad, 1946 (Popular Science Series) Biography.

DAVITASHVILI, L.Sh.

Ecogenesis of types, classes, and other subdivisions of the organic world. Soob.AN Gruz.SSR 8 no.5:313-319 '47. (MLRA 9:7)

1.Deystvitel'nyy chlen Akademii nauk Gruzinskoy SSR.2.Akademiya nauk Gruzinskoy SSR, Tbilisi.
(Ecology) (Paleontology) (Evolutions)

DAVITASHVILI, L.A.

Ecogenesis of natural regions and habitat types. Soob.AN Gruz. 8 no.6:387-391 '47. (MLRA 9:7)

1.Deystvitel'nyy chlen Akademii nauk Gruzinskoy SSR.2.Akademiya nauk Gruzinskoy SSR, Tbilisi.
(Ecology) (Paleontology) (Evolution)

DAVITASHVILI, L.Sh.

Ecogenetic processes of particular significance. Soob.AN Gruz.SSR 8 no.7:435-439 '47. (MLRA 9:7)

1.Deystvitel'nyy chlen Akademii nauk Gruzinskoy SSR.2.Akademiya nauk Gruzinskoy SSR, Tbilisi.
(Ecology) (Paleontology) (Evolution)

DAVITASHVILI, L. Sh.

Acting Member of the Georgian Academy of Sciences (1949)

"The History of Evolutionary Paleontology from Darwin to Our Day," 1948.

Stalin 2nd Prizes, 1948, publ.

Current Digest of the Soviet Press, Vol. 1, No. 15, 1949, page 16. (In [redacted] Library)

DAVITASHVILI, L. Sh.

"Theoretic Principles of Correlation for Upper Tertiary Deposits of the Black-Sea-Caspian Basin," Mat. geol. inst., No.5, 1948

DAVITASHVILI, L. Sh.

"A Course in Paleontology," 2nd edition, 1949

DAVITASHVILI, L.

Member, Georgian Republic Academy of Science

Paleontology

"An Institute's Serious Mistakes", Letter to Editor, Pravda, 1949.

Current Digest of the Soviet Press, Vol , No. , 19 , page . (In [redacted] Library)

DAVITASHVILI, L. SH.

Davitashvili, L. SH. "V. O. Kovalevskiy and T. Hexli as naturalists and evolutionists," (An outline of a comparative study), Trudy in-ta istorii Yestestvoznaniya (Akad. nauk SSSR), Vol III, 1949, p. 351-67

SO: U-5241, 17 December 1953, (Letopis 'Zhurnal 'nykh Statey, No. 26, 1949)

DAVITASHVILI, Leo Shiovich

B.O.Kovalevskii. Izd.2., dop. Moskva, Izd-vo Akad.nauk SSSR, 1951. 578 p. (MIRA 14:4)
(Kovalevskii, Vladimir Onufrievich, 1842-1883)

DAVITASHVILI, L. SH.

Present state of Soviet paleontology and prospects for its development. Izv. AN SSSR. Ser. Biol. No 2, 1952.

DAVITASHVILI, L.Sh.

Concept in Russian paleontology of the inheritance of acquired characteristics by organisms. Trudy Inst.ist.est. 5:51-92 '53. (MLRA 6:7)
(Variation (Biology)) (Heredity)

DAVITASHVILI, L. Sh.

BUL'YE, K.F.; DAVITASHVILI, L.Sh.; MIKULINSKIY, S.R.; PETROVSKIY, I.G., akademik, redaktor; ANDREYEV, N.N., akademik, redaktor; BYKOV, K.M., akademik, redaktor; KAZANSKIY, B.A., akademik, redaktor; OPARIN, A.I., akademik, redaktor; SHMIDT, O.Yu., akademik, redaktor; SHCHERBAKOV, D.I., akademik, redaktor; YUDIN, P.F., akademik, redaktor; KOSHTOYANTS, Kh.S., redaktor; SAMARIN, A.M., redaktor; MAKSIMOV, A.A., redaktor; LEBEDEV, D.M., doktor geograficheskikh nauk, redaktor; FIGUROVSKIY, N.A., doktor khimicheskikh nauk, redaktor; KUZNETSOV, I.V., kandidat filosofskikh nauk, redaktor; OZNOBISHIN, D.V., kandidat istoricheskikh nauk, redaktor;

[Selected biological works] Izbrannye biologicheskie proizvedeniia. Redaktsiia, stat'ia i kommentarii L.Sh.Davitashvili i S.R.Mikulinskogo. Moskva, Izd-vo Akademii nauk SSSR. 1954. (MLRA 7:8)

1. Chlen-korrespondent AN SSSR (for Koshtoyants, Samarin, Maksimov) (Biology)

ALIZADE, K.A.; DAVITASHVILI, L.Sh., redaktor; ABRAMOVICH, M.V., doktor geologo-mineralogicheskikh nauk, redaktor; VASILEVSKIY, Ya., redaktor

[Akchaghylian stage of Azerbaijan] Akchagyl'skii iarus Azerbaidzhana. Baku, Ivd-vo Akad. nauk Azerbaidzhanskoi SSR, 1954. 343 p. illus. (MIRA 8:6)

1. Deystvitel'nyy chlen Akademii nauk SSSR (for Davitashvili).
(Azerbaijan--Geology, Stratigraphic)

ANILINSKIY, I.Ya; DAVITASHVILI, L.SH; POLYAKOV, I.M., redaktor; KISELEVA, A.A., tekhnicheskiy redaktor.

[Geoffroy Saint-Hilaire and his fight with Cuvier] Zhoffua Sent-Iler i ego bor'ba protiv Kiuv'e. Moskva, Izd-vo Akademii nauk SSSR, 1955. (MLRA 8:10)

1. Deystvitel'nyy chlen AN Gruzinskoy SSR(for Davitashvili)
(Geoffroy Saint-Hilaire, Etienne, 1772-1844)
(Cuvier, Georges, 1769-1832)

DAVITASHVILI, Leo Shiovich; POLYAKOV, I.A., otvetstvennyy redaktor; MIKULINSKIY, S.P., redaktor izdatel'stva; ASTAF'YEVA, G.A., tekhnicheskiy redaktor

[Historical sketch of the teaching of the evolutionary process] Ocherki po istorii ucheniia ob evoliutsionnom progresse. Moskva, Izd-vo Akademii nauk SSSR, 1956. 226 p. (MLRA 9:11)
(Evolution)

DAVITASHVILI, L. Sh.

KOVALEVSKIY, Vladimir Onufriyevich; DAVITASHVILI, L. Sh., otvetstvennyy redaktor; ASPIZ, M.Ye., redaktor izdatel'stva; KISELEVA, A.A., tekhnicheskiy redaktor

[Collection of scientific works] Sobranie nauchnykh trudov. Moskva, Izd-vo Akademii nauk SSSR. Vol.2. 1956. 299 p. (MLRA 10:2)
(Ungulata, Fossil)

15-57-5-5819

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5, p 15 (USSR)

AUTHORS: Davitashvili, L. Sh., Khimshiashvili, N. G.

TITLE: The History of the Term "Paleontology" and Some Other Scientific Names for Organisms From the Geologic Past (K istorii termina "paleontologiya" i nekotorykh drugikh nazvaniy nauki ob organizmakh proshlykh geologicheskikh vremen)

PERIODICAL: Vopr. istorii yestestvozn. i tekhniki, 1956, Nr 2, pp 176-181.

ABSTRACT: Until recently the opinion was held that the term "paleontology" was proposed almost simultaneously by the Russian scientist Fischer Von Waldheim (Fisher fon Val'dgeym) and by the French scientists Blenville (Blenvil'). The authors have established the fact that the term "paleontology" was first introduced by Blenville in 1825 in his book "Handbook on Malacology and Conchology." It is proposed that the term "paleo-

Card 1/2

DAVITASHVILI, L. SH.

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 2, pp 28-29 (USSR) 15-57-2-1378

AUTHOR: Davitashvili, L. Sh.

TITLE: A Study of Ecogenesis of Herbaceous Mesophile and Xerophile Phytocenoses (K izucheniyu ekogeneza travyanistykh mezofil'nykh i kserofil'nykh fitotsenozov)

PERIODICAL: Soobshch. AN GruzSSR, 1956, Vol 17, Nr 2, pp 111-117

ABSTRACT: The process of grass cover development started before the Miocene epoch. Data from pollen analysis and paleontology indicate that the herbaceous grasses began to develop as early as the end of the Oligocene. Highly valuable data for the acquisition of knowledge about the ecology of herbaceous plants which inhabited the primary steppe areas can be obtained by a parallel study of pollen and seed pods of the grass family. The ecogenesis of the fossil flora sheds light on the climatic conditions during the emergence of herbaceous plants.

Card 1/1

E. D. Z.

DAVITASHVILI, L. SH.

15-57-1-106

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1, p 15 (USSR)

AUTHOR: Davitashvili, L. Sh.

TITLE: Development of Faunas in the Black Sea Basin During the Pliocene (O razvitii faun Chernomorskogo bassseyna v techeniye pliotsena)

PERIODICAL: Soobshch. AN GruzSSR, 1956, Vol 17, Nr 3, pp 227-234

ABSTRACT: The article presents the sequence of succession of the bentonic molluscan faunas in the Black Sea Basin during the entire Pliocene from the Pontian to the Chauda. It traces the development of separate forms and of some basic groups from the Pontian to the Cimmerian, from the Cimmerian to the Kuyalnik, from the Kuyalnik to the Guria and from the latter to the Chauda. The Guria and Chauda complexes, which are considered very different from the "Pontian" faunas, are shown to be related to

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Development of Faunas (Cont.)

15-57-1-106

the complexes of the preceeding periods. The author further notes the zoological and geographical differences in the separate parts of the Pliocene seas. The southeastern part, which includes the Rion embayment, remained specifically unique from the Pontian throughout the entire Pliocene. Here the horizons are more closely related to one another paleontologically than the contempory horizons in other locations. The existence of such direct sequence of paleontological complexes difies the assumption that the Black Sea Basin contained a sea with fauna of different origin in the periods separating the various ages. Thus, the assumption that after the Kuyalnik the entire Black Sea Basin was filled with waters of the Akchagyl Sea is quite erroneous. All facts point only to the presence of an Akchagyl Sea bay in the region of the northern Black Sea. Statements of some investigators insisting on the existence of the Akchagyl in Moldavia are baseless, as is the insistence on the presence of the Akchagyl mactras in the Pontian of the Don River lowlands. These "mactras" proved to be the common Pliocene periwincles.

Card 2/2

A. G. E.

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